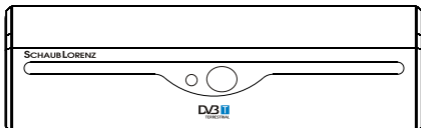


SCHAUB LORENZ

TNT-1745MPEG2

DVB-T RECEIVER



USER MANUAL

Please read and keep these instructions

**Important safety instructions-please read carefully
And keeps for future reference**



To reduce the risk of fire or electric shock, do not expose this product to water, rain or moisture. To prevent the risk of electric shock, do not remove the cover or back of this product. In case of product failure, only qualified personnel can repair. There are no user-serviceable parts inside.

CAUTION !

Dangerous tension inside the product! Do not open. Risk of electric shock! No parts can be repaired by the end-user. Only qualified personnel can repair and maintain this product.

If the electric cord is damaged, it must be replaced by the manufacturer or qualified after-sales personnel in order to avoid any danger.

The product must be installed in accordance with local laws.

Damaged batteries must be properly disposed. In order to protect the environment, please dispose the batteries properly, in accordance with local laws (information is available at your reseller).

Where to install the product

- Place the product on a straight, rigid and stable place. Do not place the product on a carpet.
- Do not place the product on top of another that may cause overheating (for example, a receiver or amplifier).
- Do not place anything underneath the product (for example, CDs or magazines).

Proper ventilation

- Place the product in a sufficiently-aerated place to avoid overheating. Allow at least 10cm spacing at the back and top of the product, and 5cm spacing on both sides to prevent overheating.
- Do not place items such as newspapers, tablecloth, curtains, in front of the ventilating openings.

Do not expose the product to high temperatures, moisture, water and dust.

- The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus
- Do not place other items close to this product that may damage it (for example, an object containing water or lightened candles).
- No naked flame sources, such as lighted candles, should be placed on the apparatus.

Electric supply

- Please unplug the product in case of prolonged non-use.
- This product is intended to be used under temperate climate and should not be used under tropical climate.
- If the supply cable is damaged, it must be replaced by the manufacturer or qualified after-sales personnel to avoid any danger.
- This product must be connected to an electrical supply 230V ~ 50Hz.
- The mains plug is used as the disconnect device, so the disconnect device shall remain readily operable.



This product is compliant with directives 2006/95/EC (abrogating the directive 73/23/EEC modified by the directive 93/68/EEC) and 2004/108/EC (Abrogating the directive 89/336EEC).



- This logo set on the product means that the recycling of this apparatus comes within the framework of the directive 2002/96/EC of January 27, 2003 concerning the waste on electrical and electronic equipment (WEEE).
- The presence of dangerous substances in the electrical and electronic equipments can have potential consequences on the environment and human health in the cycle of reprocessing this product.
- Therefore, at the end of its lifetime, this product shall not be disposed with other non-recycled waste.
- As the end user, your role is of prime importance in the cycles of re-using, recycling, and other forms of valorization of this electrical and electronic equipment. Local authorities and resellers have set special procedures for the purpose of collecting and recycling this product.
- You have the obligation to use the selective waste collection systems put in place by your local authorities.

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1. Introduction

Welcome

Thank you for choosing this Digital Terrestrial Television Receiver. This device will allow you to receive all free-to-air DVB-T channels broadcast in MPEG-2.

- The installation is convenient and fast, all you need is to connect the unit to your home antenna and to the scart input of your television.

Auto Standby

In order to save energy, the electricity consumption of this product has been reduced in both operation mode and standby mode. Furthermore, if no operation is carried out for three consecutive hours, the unit will automatically enter standby mode. Simply press the Standby button on the remote control to switch the unit back to operation mode.

Main Features

- Full comply with European DVB-T standard
- Full MPEG2 ISO/IEC 13818 transport stream compliant audio/video decoding
- Bandwidth of 7/8 MHz supported
- COFDM demodulator
- Automatic/manual channel search
- Channel edit, moving and deletion
- Parental lock control
- NTSC/PAL converting automatically and manually
- Multiple-language OSD
- Supports multi-subtitle

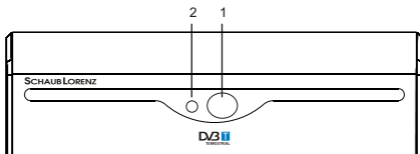
Package Contents

Before installing the product, please check that you have in possession the following.

- ~ DVB-T Receiver x1
- ~ Remote Control x1
- ~ User Manual x1

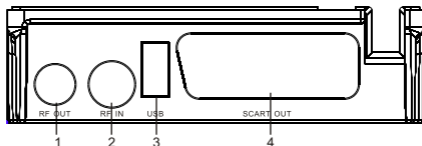
2.Front Panel and Rear Panel

Front Panel



- 1. REMOTE CONTROL SENSOR
- 2. STANDBY INDICATOR

Rear panel

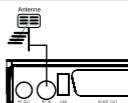


- 1. **RF LOOP THROUGH:** This socket will by pass the RF signal to either your TV or another video system.
- 2. **RF IN :** This socket connects to your external aerial.
- 3. **USB:** USB Upgrade.
- 4. **SCART OUT:** This socket connects to your TV.

(1)First step: Connect the unit with your roof antenna

Connect your home antenna with the unit's input "RF IN".

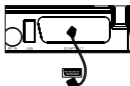
(The antenna cable is not provided)



(2)Second step: Connect the unit with your television

Use a scart cable to connect the unit's "SCART OUT" output to the scart input of your television.

(The scart cable is not provided)



(3)Prepare the remote control

Insert two AAA batteries into the remote control. Make sure to respect the polarity sign + / - (batteries are not included).

(4>Welcome Page

a. When first time power on, it will show welcome page like below:



b. Press **Up/Down** key to move highlight.

c. Press **Left/Right** key to select region and OSD language.

d. Move highlight to **OK** button and press **OK** key to begin to auto scan.

e. Press **Exit** key to exit menu.

When you enter to "Installation" menu, there will display the screen like below: In "Installation" menu;



Remarks: If MENU lock is "On", input password first. Default password is "0000"

Important Remarks:

(1) Analog Reception and DVB-T Reception

When you wish to watch TV using your TV tuner (analog tuner) and that your DVB-T unit has been turned off or unplugged, the image quality can be deteriorated according to the TV you are using. This is normal, your DVB-T unit must be set in standby mode to allow a good quality signal.

(2) Problems receiving DVB-T channels

- First check that you have well connected your home antenna with the DVB-T unit.
- Start a new automatic channel search as follows:
 1. Press the MENU key from the remote control
 2. Then select **installation**
 3. Then select **Auto search** in order to run the automatic channels search.

(3) If the reception problem still occurs.

Your unit has been tested for optimal performance over all the country. In most cases, the DVB-T reception problems are due to a weakness in your home's antenna installation. If your installation is old, or has never been tested for DVB-T, the signal can be too weak or flawed for the unit to work properly. It is therefore highly recommended that you ask for a qualified technician to test the compliance of your home antenna. This unit has been designed and is guaranteed to work with a signal of at least 60dB.

Good to know - Main Functions of your Remote Control

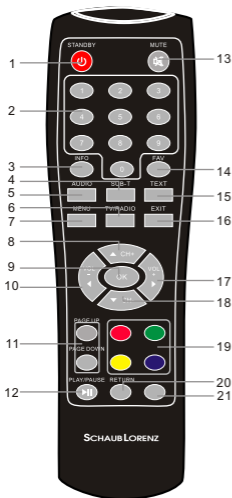
Menu Navigation

- Use the **MENU** button to change the unit's configuration. You can also define your favourite channel lists, which will be directly accessible by using the **FAV** button on the remote control.
- To exit a menu or a sub-menu, press the **EXIT** button on the remote control to return to the previous screen.

Audio Language Selection

- Press the **AUDIO** button to:
 - o Change the audio track to another language if this option is available on the current DVB-T channel.

3. Remote Controller



1. STANDBY: Used to switch the set top box to on and off.

2. NUMBER KEYS: Used to select channel numbers or input numbers in menus.

3. INFO: Display the detailed information of programs.

4. SUB-T: Used to switch between different subtitles that are broadcasted.

5. AUDIO: Used to set the sound output, the available settings are STEREO, LEFT, RIGHT.

6. TV/RADIO: Switch between Digital Radio and DVB-T modes (Radio is not available in countries such as France).

7. MENU: Used to open the main menu window or return to the previously-viewed menu.

8. CH+: Used to move around the menu screens or selecting the channels in non-menu state.

9. OK: Used to confirm a selection within a menu or enter "QUICK SELECT" to scan program list.

10. VOL-: Used to move around the menu screens or changing the volume in non-menu state.

11. PAGE UP/PAGE DOWN: To browse through the pages of channels.

12. PLAY/PAUSE: To freeze the current image, and then to resume viewing.

13. MUTE: Used to turn the sound on or off.

14. FAVORITE: Used to access your favorite channels.

15. TEXT: Used to open teletext OSD display if teletext available in the broadcasted stream.

16. EXIT: To exit the viewing screen or the current menu.

17. VOL+: Used to move around the menu screens or changing the volume in non-menu state.

18. CH-: Used to move around the menu screens or selecting the channels in non-menu state.

19. RED/BLUE/GREEN/YELLOW BUTTONS: These buttons are used to navigate teletext pages.

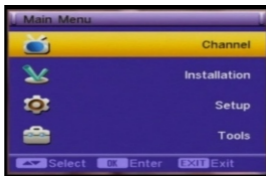
20. RETURN: To return to the previously viewed channel.

21. Button without function.

4. Basic Operations

4.1 Main Menu

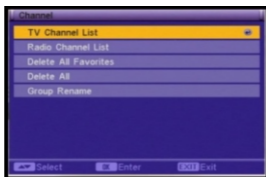
When you press **Menu** key, you can enter main menu. There will display the picture like below:



- a. Press **Up/Down** key to select menu pages among Channel, Installation, Setup and Tools.
- b. Press **OK** key to enter the selected item.

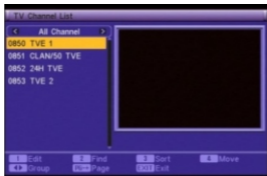
4.2 Channel

- a. Press **Up/Down** key to select items between TV Channel List and Radio Channel List.
- b. Press **OK** to enter the selected item.



4.2.1 TV Channel List

When you enter to "TV Channel List" menu, there will display the screen like below:



Press the numeric buttons on the remote control in order to: Edit, Search, Sort and Move channels. During these operations, the system may demand the parental password. The default password is 0000.

1) Editing Channels

Press the "1" button on the remote control to access the menu for editing channels.

a. Favourite Channels

Press the "1" button on the remote control to enter the menu of favourite channels: You may define one or more channels as your favourites, which allows you to access them more easily you will only need to press the FAV button on the remote control in order to watch them. In order to select a channel to be classified as favourite, press OK. Press OK again to cancel the selection.

You should then assign the selected channel to one of eight favourite channel groups. In order to delete a channel from a favourite group, select the favourite group concerned then press the "4" button on the remote control.



b. Locking Channels

This function allows you to restrict access to certain channels by requiring password entry. After selecting a channel, choose this option by pressing the "2" button on the remote control. A lock appears in front of the channel; press the "2" button again to cancel the lock.

c. Skipping Channels

This function allows you to skip the selected channels when pressing the keys CH+ and CH-. The skipped channels remain accessible when you press their channel number. To skip a channel, press "3" in front of the corresponding channel.

d. Deleting Channels

In order to delete a channel, press "4" in front of the corresponding channel. Once a channel is deleted, you will need to launch a new channel installation in order to be able to watch it again.

e. Renaming Channels

To rename a channel, press "5" in front of the corresponding channel. Move the cursor to "Esc" to cancel the operation.

2) Searching Channels: You can search the channels according the Channels name

A. Press "2" key on the RCU, the menu will be shown on the screen.

b. Press **Up/Down/Left/Right** key to move the highlight in "Find" window. Press **OK** to input char.

c. Move the highlight to "OK" and press **OK** key to save the modification.

d. Press **Exit** key to cancel the operation.



3) Sorting Channels Realign the channels according sort of option.

a. Press number "3" key to sort channel.

b. It will display a dialogue to confirm. If you select "Yes" it will display "Sort" box.

c. Press **Up** or **Right** key to move the highlight and press **OK** to select sort type such as Default/ Name(A-Z)/ Name(Z-A)/ FTA/ Lock.



4) Moving Channels: Move the channels you select to the corresponding place

You may assign a channel to a new position, which allows you select the channel easier by using CH+ and CH- buttons. In order to move a channel, select it and press the "4" button on the remote control.

4.2.2. Radio Channel List

The use of the radio station list is similar to that for the television channels. Please note that in most countries, including France/Spain/Portuguese, no radio stations are transmitted via the DVBT network.

4.2.3 Delete All Favorites

This operation will remove all favorite channels (includes TV and radio favorite channels) from favorite list. When you press **OK** key on Delete All Favorites? It will ask you "Warning! Do you really want to delete all favorite channels?" Select "Yes" to confirm or select "No" to cancel the operation.

4.2.4. Delete All

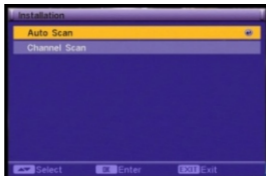
Use this option to delete all the channels installed. After that, you will need to reinstall the channels.

4.2.5 Group Rename

You can rename the group.

4.3 Installation

When you enter to "Installation" menu, there will display the screen like below: In "Installation" menu;



a. Press **Up/Down** key to select menu items among each item.

b. Press **OK** key to enter the selected item.

4.3.1 Auto Scan

When you enter to "Auto Scan" menu, (If MENU lock is "On", input password first. Default password is "0000").

a. Firstly please the country in system setup menu / region and time / region, such as "France".

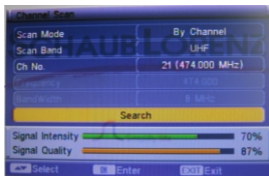
b. In "Scan Mode" item, press **Left/Right** key to select scans all channels or just scans free channels.

c. Moving the highlight to "Search" item and press **OK** key to start scanning.

d. In the "Auto Scan" menu, press **Exit** key to draw back from the scanning.

4.3.2 Channel Scan

When you enter to "Channel Scan" menu, there will display the screen like below:



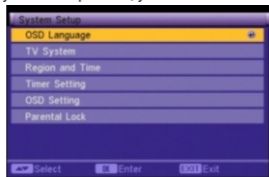
- There are two modes. You can scan channel by channel or by frequency.
- When scan band is UHF and region is "France" the range of Ch No. is from 21 to 69. When scan band is VHF and region is "France" the range of Ch No. is from 5 to 10. (It's according to region)
- When you complete your modification, move highlight to "Search" item and press **OK** key, then it will begin to scan.
- Press **Exit** key to exit the scanning.

5. System Setup

In "System Setup" menu:

- Press **Left/Right** key to select menu pages among OSD Language, TV System, Region and Time, Timer Setting, OSD Setting and Parental Lock.
- Press **Up/Down** key to select menu items among each item.
- Press **OK** key to enter the selected item.

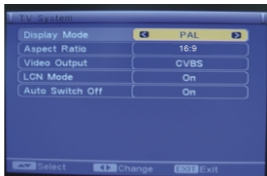
When you enter to "System Setup" menu, you will see the screen like below:



5.1. OSD Language

Choose the display language for the on-screen menus.

5.2 TV System



- The option Display Mode allows you to choose between PAL (for Europe including France/Spain/Portuguese), NTSC and Automatic.
- Aspect Ratio: Depending on the format of your television, select 4:3 LB, 4:3 PS or 16:9.
- Video Output: Select the CVBS Composite or RGB signal.
- LCN Mode: Leave this option activated to organise channels in the order predefined by the CSA.
- Standby mode: The unit automatically enters Standby mode after 3 hours of inactivity.

5.3 Region and Time

- Region is used for selecting the country which you are in. You can press **Left/Right** key to select each mode circularly.
- GMT Usage: This item is use for open the usage of GMT. You can press **Left/Right** keys to switch "Off / User Define / By Region".
- The "GMT Offset" item is valid only when the setting of "GMT Usage" is "User Define" You can press **Left/Right** keys to switch GMT Offset value, and the range is "12:00 ~ +12:00" increase each half hour progressively.
- "Date" and "Time" items are valid only when the setting of "GMT Usage" is "Off" You can press **Left/Right** keys to moving highlight and use number keys to input directly.
- "Summer Time" items are valid only when the setting of "GMT Usage" is "By Region" You can press **Left/Right** keys to switch.
- Time display function can control whether the time will be displayed on screen or not.
- Press **Exit** key to draw back from "Time" menu.

5.4 Timer Setting

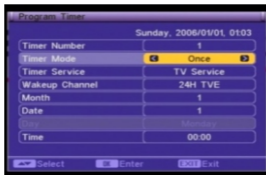
Current time information will display on the first row; if the current time is incorrect, please modify the time information in "Time" item.

Program Timer

This option allows you to set a time at which the DVBT receiver should turn on and display a channel on the screen.

- Timer Mode: There are several modes for Timer to setting, include Off, Once, Daily, Weekly, Monthly.

- b. Wakeup Channel: press **OK** key to enter channel list and select channel that you want to setting.
- c. Month / Date: press **Left/Right** keys to select your wakeup date.
- d. Day: If "Timer Mode" is "Weekly", this item is valid. You can select day such as Monday, Tuesday, Sunday.
- e. Time: press **OK** key and number keys to input your wakeup time. Once the time's up, no matter what the system is in standby mode or in playing mode, the system will automatically switch to the channel you want and start to play.
- f. Pressing **Exit** key, it will ask you "Are you sure to save?" Select "Yes" to save the timer or select "No" to cancel the operation.



Sleep Timer

- a. Sleep Timer can set the system enter standby.
- b. Press **Left/Right** key to switch the Sleep Time parameter. The option is like below: Off / 10min / 30min / 60min / 90min / 120min. then press key **OK** to start sleep time countdown.
- c. After you press **OK** key, the "Remains" will begin to show the timer's remaining time. This item is only used to display and can not be modified.
- d. Press **Exit** can exit the current menu.

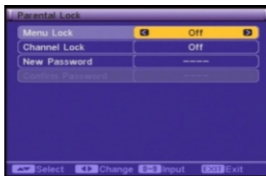
5.5 OSD Setting

- a. Subtitle Display: You can press **Left/Right** key to select "Off", "Standard" or "Teletext". If the current channel has subtitle information, it will be showed up while this function is "on". If this function is "off", there won't show up subtitle information.
- b. OSD Style: You can press **Left/Right** key to select OSD style.
- c. Load Default OSD Setting: Press **OK** to load default OSD setting.
- d. Press **Exit** key to draw back from the "OSD Setting" menu.

5.6 Parental Lock

You can set a password for anyone who wishes to operate in the "Installation" menu. And you can also set the password for the lock channels. (How to set the lock channel please refer to Lock) Here will show you how to setting and how to revising the password.

- a. In "Parental Lock" function, press **OK** key, there will pop a dialogue for you to input the password. The default password is "0000" When you input the correct password, you will see a screen like below:



- b. Menu Lock determining that when user wishes to enter "Installation" menu and Channel List / Edit whether have to input Password or not. If the setting of "Menu Lock" is "Yes" which means user have to key in password, set "No" means unlock.
- c. Channel Lock can set the channel which user wants to lock it. If you want to see the lock channel, you can set Channel lock "OFF".
- d. New Password is used for revising password; you can press **OK** key firstly then input the new password in this item by using number keys directly. After you filled in 4 digital numbers, the highlight will auto skip to Confirm Password and ask you to input the new password again. If the password is correct, the screen will show up a message of "change password successfully". draw back to "system setup" menu, the revising is complete.
- e. Press **Exit** key to draw back from the "parental Lock" menu.

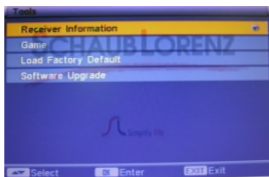
Notes:

- The default password is 0000. Enter this code if the program asks for a password and you have not set one.
- The Super Password is 0786. Use this code if you forgot your own password.

5.7 Tools

When you switch to "Tools" menu, you will see a screen like below: In "Tools" menu:

- a. Press **Up/Down** key to select menu items among each item.
- b. Press **OK** key to enter the selected item.



5.8 Receiver Information

- When you enter to "information" menu, you will see some receiver Information.
- Press **Exit** key to draw back from "Tools" menu.

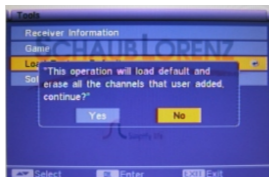
5.9 Game

When you enter "Game" menu, you will see three Games include Tetris, Snake and Othello.

5.10 Load Factory Default

When you press **OK** key In the "Load Factory Default" item:

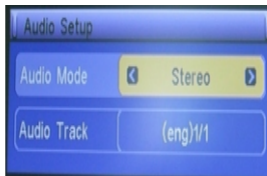
- After you input the correct password, there will show a warning message to inquiry you "The operation will load default and erase all the channels that user added, continue?"
- If you select "Yes" option, the all revised parameters of the receiver will reset to default value. Please carefully to using this function.
- In step 1 and step 2, press **Exit** key can draw back from this item and without saving.



6. Detailed Operations

AUDIO LANGUAGE

Some channels may be broadcasted into multiple languages. To change the audio language, press the AUDIO key of the remote control.



Press the DOWN button to change the AUDIO TRACK and then press the RIGHT button to change the current audio Mode.

SUBTITLES

Press the SUB-T button of the remote control to activate the subtitles function. Subtitles may be available in different languages, depending on the channel.

7. Trouble shooting

If you experience problems with this receiver or its installation, in the first instance please read carefully the relevant sections of this User Manual and this Troubleshooting section.

Problem	Possible cause	What to do
Standby light not lit	Mains lead unplugged	Check mains lead
	Mains fuse blown	Check fuse
No signal found	Aerial is disconnected	Check aerial lead
	Aerial is damaged/misaligned	Check aerial
	Out of digital signal area	Check with dealer
Mosaic blocks in picture or picture freezes	Aerial may not be compatible	Check aerial
Scrambled channel message	Channel is scrambled	Select an alternative channel
Forgotten channel lock code		Re-install channels to cancel channel lock
No response to remote control	Receiver off	Plug in and turn on receiver
	Handset not aimed correctly	Aim handset at front panel
	Front panel obstructed	Check for obstructions
	Remote control batteries are inserted incorrectly	Check batteries direction
	Handset batteries exhausted	Replace remote control batteries
After moving the receiver to another room, find can't receive the digital reception	The aerial feed may come through a distribution system which may reduce the digital signal now received by the receiver	Try a direct feed from the antenna
The unit shuts down automatically.	If no operation is performed from the remote control for three hours, the unit will automatically switch to standby mode to reduce power consumption.	Press the Standby button to put the unit back into operation.
The USB port does not read multimedia files.	The USB port on this unit is not designed for playing multimedia content. It is only used in the event of software update requested by the manufacturer.	

Important Remarks:

(1) Analog Reception and DVB-T Reception

When you wish to watch TV using your TV tuner (analog tuner) and that your DVB-T unit has been turned off or unplugged, the image quality can be deteriorated according to the TV you are using. This is normal, your DVB-T unit must be set in standby mode to allow a good quality signal.

(2) Problems receiving DVB-T channels

- First check that you have well connected your home antenna with the DVB-T unit.
- Start a new automatic channel search as follows:
 1. Press the MENU key from the remote control
 2. Then select **installation**
 3. Then select **Auto search** in order to run the automatic channels search.

(3) If the reception problem still occurs.

Your unit has been tested for optimal performance over all the country. In most cases, the DVB-T reception problems are due to a weakness in your home's antenna installation. If your installation is old, or has never been tested for DVB-T, the signal can be too weak or flawed for the unit to work properly. It is therefore highly recommended that you ask for a qualified technician to test the compliance of your home antenna. This unit has been designed and is guaranteed to work with a signal of at least 60dB.

8. Specification

Item	Specification	
Tuner	Frequency Range	VHF:174MHz to 230MHz UHF:470MHz to 862MHz
	Input Impedance	75 Ohms unbalanced
	Signal Input Level	-78~ -25 dbm
Demodulation	Bandwidth	7/8 MHz
	Demodulator	COFDM
	OFDM Modulation	2K,8K FFT,SFN and MFN
	Packet Carries	2K/8K
Connectors	Guard Interval	1/4,1/8,1/16,1/32
	RF IN	IEC 169-2 female connector
	RF LOOPTHOUGH	IEC 165-2 male connector
	TV SCART	Composite video(CVBS) RGB audio L/R
Power	USB	USB2.0
	Input	230V~ 50Hz
Display	Consumption	5 W max
	Decoder Module	PAL,NTSC
	Resolution	720x576(PAL);720x480(NTSC)
Decoding	Aspect Ratio	4:3(Letterbox,Pan&Scan),16:9
	Video	MPEG2 Transport <u>MP@ML</u>
	Audio	MPEG2 Audio Layer <u>I&II</u>
Other	Compliance	ETSI EN 300 744 DVB-T Compliance
	Sound Mode	Right,Left,Stereo

SAV

ADMEA / LOGISAV
ZI du clos des charmes
26 rue du clos des charmes
77090 COLLEGIEN - FRANCE